TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective January 1, 2012
WIN-1514

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **August 2013**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Mira Premium Series Aluminum Clad Wood Casement Shaped Windows, Impact Resistant, manufactured by

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will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The Mira aluminum clad casement shaped window is a wood window. This evaluation report includes arch top, radius top and circle top windows. The aluminum clad wood casement windows evaluated in this report are individual, impact resistant windows. This product evaluation report is for aluminum clad wood casement windows based on the following tested constructions:

General Description:

System	Description	Label Rating
1	Mira Premium Series Aluminum Clad Wood Casement Window; Arch Top; (X)	C-LC50 36 x 84
2	Mira Premium Series Aluminum Clad Wood Casement Window; True Radius Top; (X)	C-LC50 36 x 90
3	Mira Premium Series Aluminum Clad Wood Casement Window; Quarter Circle Top; (X)	C-R50 28 x 78

Product Dimensions:

System	Overall Size	Sash Size	Daylight Opening Size
1	36" x 84 1/4"	34 1/8" x 82 3/8"	30 3/16" x 78 7/16"
2	36" x 90"	34 3/16" x 88 1/16"	30 1/4" x 84 1/16"
4	28 3/16" x 77 5/8"	26 5/16" x 75 13/16"	22 1/4" x 71 3/4"

Glazing Description:

System	Glass Construction [1]	Glazing Method [2]
1	IG-1	GM-1
2	IG-2	GM-1
3	IG-1	GM-1

Note: [1] See the "Glass Construction Key" for the glazing construction.
[2] See the "Glazing Method Key" for the glazing method description.

Glass Construction Key:

IG-1: The sash contains a sealed insulating glass unit. The sealed insulating glass unit is comprised of a double strength ($\frac{1}{8}$") annealed glass lite and a laminated glass unit separated by a desiccant-filled aluminum spacer system. The laminated glass unit is comprised of two double strength ($\frac{1}{8}$") annealed glass lites with a 0.090" PVB interlayer. The glass thickness and type used in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The insulating glass units are interior glazed. The insulating glass units are held in place with a wood glazing bead.

Frame Construction: The frame head, sill, and side jambs consist of wood members.

Aluminum Cladding: The exterior extruded aluminum cladding corners are miter cut and secured to each other with an injection molded corner key and screws. The aluminum cladding is secured to the wood profiles with staples.

Sash Construction: The sash stiles and rails consist of wood members. The corners are mitered and held together with a Hoffman key.

Aluminum Cladding: The exterior extruded aluminum cladding corners are mitered and secured together with aluminum corner keys at each corner.

Hardware:

- Hinges; Four (4) required; Secured to the frame with four (4) No. 7 x $\frac{3}{4}$" screws and to the sash with sash with three (3) No. 7 x $\frac{3}{4}$" screws.
- Continuous lock bar with one lock point; One (1) required; Located on the lock jamb.
- Metallic keepers; Three (3) required; Located on the vent.
- Single arm roto operator; Located on the sill.

Reinforcement: None.

Product Identification: A certification program label (NAMI) will be affixed to the window. The certification program label includes the manufacturer's code name (**PWG-M-93**); product name: **Mira Casement**; performance characteristics; the approved inspection agency (NAMI); and the following applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05, and ASTM E 1886 and ASTM E 1996.

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	36	84 1/4	± 50
2	36	90	± 50
3	28 3/16	77 5/8	± 50

Impact Resistance: These assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I zone** and the **Seaward zone**. The assemblies passed Missile Level D specified in ASTM E 1996-06. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These assemblies will not need to be protected with an impact protective system.

Acceptance of Smaller Assemblies: Windows assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: The window assembly shall be prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation: The window shall be fastened to minimum Southern Yellow Pine dimension lumber. The window is secured to the wall framing using the integral nailing fin at the head, sill, and side jambs of the window frame. The nailing fin shall be secured to the wall framing with minimum No. 8 screws. The fasteners shall be spaced approximately 2 inches from each corner and approximately 12 inches on center. The fasteners shall be long enough to penetrate a minimum of 1 1/2 inches into the wall framing members. The nailing flange is silicone sealed to the window frame.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.